

ABSTRACT OF THE DISCLOSURE

An optical device is configured such that an insertion plate is held by a flat cantilever having electric wiring, and the flat magnet is placed in such a manner that the magnet faces a surface of the cantilever opposite to the other surface of the cantilever facing an optical waveguide, and that the current flowing through the electric wiring is controlled in this state so that the Lorentz force caused by the interaction between the current and the magnetic field displaces the cantilever to drive the insertion plate, and to insert or remove the insertion plate into or out of the slit provided in the optical waveguide to switch the optical path of signal light or to adjust the quantity of an optical beam.